

Compliance History of Wasatch Energy Systems

Wasatch Energy Systems operates a waste to energy municipal combustor at 650 East Highway 193 in Layton, Utah. The facility began operation in 1988, and was originally owned and operated by DESCO, a subsidiary of Katy-Seghers, Inc. In 1992, the facility was taken over by Davis County and was renamed the Davis County Solid Waste Management and Energy Recovery Special Service District. In 1997, the county renamed the facility Wasatch Energy Systems and it is currently operating under that title. The following is a compliance history of this facility:

- 2/17/83 A Notice of Intent (NOI) was submitted for approval of the construction and operation of the waste to energy facility. Additional information was submitted on 10/25/84, 12/9/86, and 6/10/88. An Approval Order (AO) was issued on 10/7/88.
- 7/30/89 Notice of Violation (NOV) was issued. The violations were for condition 13 of the AO dated 10/7/88 for failing to inject lime at 200 lb/hr or more and for UACR 4.7 for failure to report a breakdown of the lime injection system.
- A Settlement Agreement to resolve the above NOV was signed on 2/15/90. DESCO paid \$10,000 in cash and was given a \$322,000 credit for improved grate design and combustion air enhancement.
- 1/3/90 NOV issued for failing to comply with UACR 4.6.6 and 40 CFR 60.60-7d. Opacity monitoring records were missing and were not reported.
- A Settlement Agreement to resolve the above NOV was signed on 2/15/90. DESCO paid a \$12,000 cash penalty.
- 2/19/91 NOV issued for failing to comply with condition 4 of the AO dated 10/7/88. Stack test results during the 12/27/90 test found HCL emissions on unit A were 41.12 lbs/hr and the limit is 16.00 lbs/hr.
- 5/1/91 NOV and Order To Comply or Cease and Desist Operations was issued for violating conditions 4 and 14 of the AO dated 10/7/88. Condition 4 for exceeding the SO₂ limitation for boilers A and B. The limit was 11.30 lbs/hr. SO₂ timeshare monitors showed boiler A exceeded for 98 hours and boiler B exceeded for 105 hours from 10/1/90 through 12/31/90. Conditions 14 for exceeding the CO limitation for boilers A and B.
- 11/21/91 NOV was issued for failing to comply with conditions 14 of the AO dated 10/7/88 and UACR 4.6.7B. Condition 14 for exceeding the CO concentration limits and for operating outside of the allowable temperature ranges. UACR 4.6.7B, for failure to perform a quarterly calibration audit of the boiler B CEM.

2/19/92	A Settlement Agreement for the NOV's dated 2/19/91, 5/1/91 and 11/21/91 was signed. DESCO paid a \$125,000 cash penalty.
8/19/92	An experimental variance was issued in order to allow the company to attempt to optimize boiler combustion efficiency and acid gas removal efficiency.
12/23/92	A Source Compliance Action Notice (SCAN) was issued for exceeding the allowable operating hours on one of the diesel fired backup generators.
6/18/93	During an annual inspection, it was noted that the trona handling system was being poorly maintained and was malfunctioning during loading. Trona had been spilled and was stored in open containers creating potential fugitive dust problems.
9/8/93	During an annual inspection, the facility was found to be in compliance with all observed AO conditions at the time of inspection.
10/1/93	The experimental variance issued on 2/19/93 expired.
12/22/93	Annual inspection noted non-compliance with conditions 1, 2, and 13 of the AO dated 10/7/88. The company had submitted a Notice of Intent on 10/26/93 as a result of the findings while operating under the experimental variance, so no NOV was issued for the non-compliance.
12/15/94	SCAN was issued for CO exceedence. The company claimed it was due to an unavoidable breakdown when they were processing wet refuse. DAQ does not agree that processing wet refuse constitutes an unavoidable breakdown.
2/1/95	SCAN issued for excess CO emissions discovered during a review of the third and fourth quarter quarterly reports for 1994.
9/22/95	SCAN issued for exceeding the CO limit.
9/10/96	Executive Secretary issues current AO for Wasatch Energy Systems (WES)
9/27/96	The company was found in compliance with the observed AO conditions during an annual compliance inspection.
2/5-8/97	WES performs stack testing of Units A and B. Unit A exceeds HCL limit.
4/7/97	Rigo, WES consultant, sends letter stating that he has stopped work on the 2/97 dioxin/furan samples citing temperature problems and deviation of the sample characteristics from characteristics displayed by dioxin/furan samples from other facilities around the country.

4/17/97	WES performs stack testing of Units A & B. Unit A exceeds HCL limit.
5/7/97	DAQ requests that all test results be submitted for review.
5/6/97	WES sends letter stating that it will submit test results after 4/97 results are analyzed.
6/26/97	NOV issued exceedence of the HCL limit for Unit A on 2/5-8/97 and 4/14/97 and for failure to perform dioxin/furan tests in 2/97. Test results were 350 ppmdv on unit A during the 4/14/97 stack test. The limit is 330 ppmdv for HCL.
7/17/97	WES appeals NOV dated 6/26/97.
2/20/98	WES is found to be in compliance with all observed AO conditions at the time of an annual inspection. Stack testing evaluation was not included.
9/15-17/98	WES performs annual stack testing to demonstrate compliance with AO emission limits. Both Units A & B exceed dioxin/furan limit of 360 ng/dscm. (Unit A = 624 ng/dscm, Unit B = 685 ng/dscm).
9/16/98	Executive Secretary and WES enter into a Stipulation and Consent Order which states that: <div style="margin-left: 40px;"> <p>A. During 2/97 and 4/97 tests, no violation of the Unit A HCL emission limit occurred.</p> <p>B. During 4/97 test, violation of dioxin/furan emission limit for Unit B did not occur. Method imprecision was cited as the rationale.</p> <p>C. Fluoride limit will not be enforced, pending establishment of a new fluoride limit.</p> <p>D. WES will perform a toxicity study of soil and milk samples.</p> </div>
10/29/98	NOV issued for exceedence of CO emission limit during second quarter of 1998, exceedence of SO ₂ during third quarter of 1998 and for failure to meet minimum reagent feed rate on four days during third quarter 1998.
11/6/98	WES appeals NOV dated 10/29/98.
4/28/99	10/29/98 NOV resolved. DAQ had to modify the electronic review program used specifically for WES. WES agreed to clarify the information reported in the quarterly reports.

7/9/99	NOV issued for failing to comply with condition 7 and 8 of the AO dated 9/10/96, Condition 7 for exceeding the dioxin/furan emission limit for units A and B. Results for unit A were 624 ng/dscm and unit B were 685 ng/dscm. The limit is 360 ng/dscm. Condition 8 for failure to conduct testing which constitutes an annual compliance demonstration.
7/16/99	WES sends letter stating that it disagrees with 9/98 test results. Letter also states that they believe testing performed in 12/98 provides credible evidence of an annual compliance demonstration, even though DAQ rejected the 12/98 test. 12/98 tests were rejected because pretest notification was not given and dioxin/furan runs were two hours in duration , not the four hour runs required by the AO.
7/30/99	WES requests that 7/9/99 NOV be vacated because of claims made by Dr. Rigo that 9/98 test results defied “well-known” relationship between air pollution control device temperatures and dioxin concentrations.
8/23/99	SCAN issued to WES for failure to sign report for second quarter 1999 electronic report.
8/31/99	WES was found to be in compliance with the observed AO conditions at the time of inspection. Stack testing conditions were not evaluated during this inspection.
9/21-24/99	Units A and B are tested.
11/8/99	Rigo notifies DAQ that he has stopped work on 9/99 stack test results. He claims runs are two hours long, not the four hours runs required. This contradicts test contractor field data sheets and DAQ on-site observations.
12/15-17/99	WES conducts stack testing and the results indicate compliance with all emission limits established in the 9/10/96 AO.
1/5/2000	Executive Secretary issues Order to submit all data/reports associated with 9/99 test. WES given 30 days to compile and submit data/reports. Order issued because Rigo’s reasons for stopping work on test results were unfounded.
1/14/2000	WES proposes to install new air pollution control equipment ahead of schedule if DAQ drops all current NOV/Orders. This modification will cost WES approximately \$7 million and will reduce air emissions from the plant about five years earlier than EPA requirements.
3/2/2000	NOV issued for exceeding the dioxin/furan and cadmium emission limits set in condition 7 of the 9/10/96 AO. The results for unit A were 0.214 mg/dscm for cadmium and 1101.1 ng/dscm. The limits are 0.11 mg/dscm for cadmium and 36- ng/dscm for

dioxin/furan.

- 3/3/2000 EPA sends DAQ a letter expressing concerns with WES. The EPA views WES as a High Priority Violator due to the stack testing violations of the past three years. The EPA also suggests that the state address penalties, economic benefit and compliance schedules in any resolution with WES.
- 3/27/2000 DAQ and WES enter into a Stipulation and Consent Order to resolve the 7/9/99 and 3/2/2000 NOV's. The agreement assesses a \$38,000 penalty but the penalty is suspended as long as WES follows the schedule established in the Order for installation of new air pollution control equipment.
- 9/6/2000 DAQ issues WES an AO with the new federal requirements listed. The AO is not enforceable for 25 months from this date.
- EPA sends DAQ a letter indicating concerns with excess CO emissions and the way WES reports data in their quarterly reports. This letter questions WES's claims that much of the excess CO emissions at the facility are due to unavoidable breakdowns. EPA does not agree with the way the information is submitted in the AIRS system. EPA is also questioning WES' claims of slagging so often and wonders if it truly is unavoidable.
- 9/15/2000 WES is considered in compliance with all observed AO conditions at the time of inspection. There is a current investigation into excess CO emissions.
- 9/26/2000 EPA issues WES a Section 114 request for information. The 114 letter requests that WES conduct dioxin/furan and CO stack testing every five weeks and also requests information from the operation manual used by operators at WES.
- 10/4/2000 WES submits a Request for Variance from the dioxin/furan emission limitations contained in the AO dated 9/10/96. WES also submits a Request for Variance from the CO emission limitations contained in the AO dated 9/6/2000.
- 10/5/11/9/2000 DAQ requested information from WES concerning the CO emission. Information submitted included all data for the 12-month period of 10/1/99 through 9/30/2000.
- This information is currently under review and additional information has been requested in a third letter dated 1/4/2001. WES provided all of the required CO data on 2/12/2001. DAQ is completing its review and findings as of 3/1/2001.
- 10/18/2000 WES sends EPA a letter asking them to reconsider the Section 114 Information

Request and questions the EPA's authority to issue such a request.

11/15/2000 EPA responds to WES' request and informs them that they will not alter the Section 114 Information Request and provides WES with all documentation of the EPA's authority to require the company to comply. WES is also given a 14-day extension to comply with the Section 114 letter.